

***Remarks***

Upon entry of the foregoing amendment, claims 55-84, 106-111, 113, 114 and 130-148 are pending in the application, with claim 55, 56, 71, 72, 106, 113 and 136 being the independent claims. Claims 72-84, 106-111, 136, 137 and 141 are withdrawn. Claims 55, 56, 69, 70, 71, 113, 114, 131, 132, 133, 135, 138, 140, 142, 143, 144, 147 and 148 are sought to be amended. Claims 70, 131-133, 135, 138, 142-144 and 147 have been amended to alter claim dependencies. Claims 69, 114, 140 and 148 have been amended to correct typographical errors and/or formatting. Support for the amendments to claims 55, 56, 71 and 113 may be found, *e.g.*, at page 55 of the specification. No new matter has been added by these amendments.

Based on the amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 102***

The Examiner rejected claims 55, 57-59, 61-68, 70, and 131-135 under 35 U.S.C. § 102(b) as allegedly anticipated by Sasaki *et al.* (*PNAS USA*, 95:3455-3460 (1998)). The crux of the Examiner's argument is that the limitation "abortive promoter cassette" is not specifically defined by the specification, and that the limitation encompasses any structure which comprises promoter sequence that is capable of effecting abortive reiterative synthesis. The Examiner also alleges that Sasaki *et al.* teaches steps (a)-(d) of claim 55 and points to various disclosures in the cited art in alleged support thereof. The Examiner indicated that amending the claims to recite the structure of the "abortive

promoter cassette" as exemplified in Figure 19 would overcome the rejection. Applicants respectfully traverse this rejection.

Solely to advance prosecution and not in acquiescence of the Examiner's rejection, Applicant has amended the claims to recite structural features of the claimed APC, as described, *e.g.*, on page 55 of the specification. Applicant respectfully submits that Sasaki *et al.* do not describe a method of detecting a target polynucleotide using an APC as claimed. Therefore, for at least this reason, Applicant respectfully submits that Sasaki *et al.* do not anticipate the claimed invention.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection.

***Rejection under 35 U.S.C. § 103***

The Examiner rejected claims 56, 57-71, 113, 114, 130-135, 138-140 and 142-148 under 35 U.S.C. § 103(a) as allegedly unpatentable over Sasaki *et al.* in view of Kang *et al.* (U.S. Patent No. 6,268,131). The Examiner applied the alleged teachings of Sasaki *et al.* as described above. The Examiner further contended that Sasaki *et al.* do not explicitly disclose that their method would be used in the detection of pathogen in a test sample, such as RNA virus, or that an RNA-dependent RNA polymerase is used for the transcription, or that the RNA-dependent RNA polymerase is a poliovirus RNA polymerase. The Examiner alleged that Kang *et al.* disclose a method of sequencing nucleic acid via use of RNA-dependent RNA polymerases, wherein the transcription of the template is initiated by a promoter sequence. The Examiner further contended that Kang *et al.* teaches an embodiment wherein the primer is immobilized on a solid surface.

The Examiner concluded that it would have been *prima facie* obvious to one of ordinary skill in the art to combine the teachings in the cited art for the purpose of detection/characterizing pathogens in a sample. The Examiner contended that the skilled artisan would have been motivated to combine the cited art to detect pathogens, such as RNA-based pathogens, and would have had a reasonable expectation of success. The Examiner indicated that amending the claims to recite the structure of the "abortive promoter cassette" as exemplified in Figure 19 would overcome the rejection. Applicant respectfully traverses this rejection.

Solely to advance prosecution, and not in acquiescence of the Examiner's rejection, Applicant has amended the claims to recite structural features of the claimed APC. Applicant respectfully submits that Sasaki *et al.* do not describe a method of detecting a target polynucleotide using an APC as claimed. Therefore, the combination of Sasaki *et al.* and Kang *et al.* would not lead to the Applicant's claimed invention because Sasaki *et al.*, neither alone nor in combination with Kang *et al.*, teaches or even suggests a method of detecting a target nucleic acid using an APC as claimed. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection.

***Obviousness-type Double Patenting***

The Examiner provisionally rejected claims 55-71, 113, 114, 130-135, 138-140, and 142-148 on the ground of nonstatutory obviousness-type double patenting as being allegedly unpatentable over claims 26, 27, 103, 112 and 136-139 of copending Appl. No. 10/488,971. The Examiner also rejected claims 55-71, 113, 114, 130-135, 138-140, and 142-148 as allegedly unpatentable on the ground of nonstatutory obviousness-type

double patenting over claims 1-22, 32-34, and 44 of copending Appl. No. 10/976,240.

The Examiner further rejected claims 55-71, 113, 114, 130-135, 138-140 and 142-148 as allegedly unpatentable on the ground of nonstatutory obviousness-type double patenting over claims 11-27 of copending Appl. No. 10/425,037. Applicant respectfully traverses these rejections.

Applicant respectfully requests that the Examiner reconsider and withdraw these rejections, or hold the present rejections in abeyance, pending the identification of otherwise allowable subject matter, at which time Applicant will consider filing any necessary terminal disclaimers.

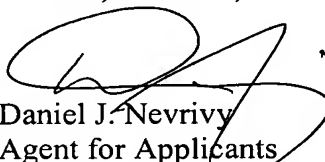
### ***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully  
requested.

Respectfully submitted,

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